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(54) Clock and carrier recovery in a QAM demodulator

(57) A QAM demodulator comprises a timing synchroniser 7 whose output is supplied via an adaptive equaliser 8 to a carrier synchroniser 9, all of which are controlled by a controller 6. The timing synchroniser 7 resamples the incoming signal in the digital domain with a sampling period which, during an acquisition mode, sweeps between limit values at different rates. The con-

troller 6 begins an acquisition cycle at the highest rate and monotonically lowers the sweep rate until timing lock is achieved. The sampling rate is then fixed at the correct value. Similarly, the controller 6 sweeps the local oscillator of a phase locked loop in the carrier synchroniser 9 initially at a highest rate and at progressively lower rates until the carrier synchroniser 9 locks to the phase of the incoming signal.

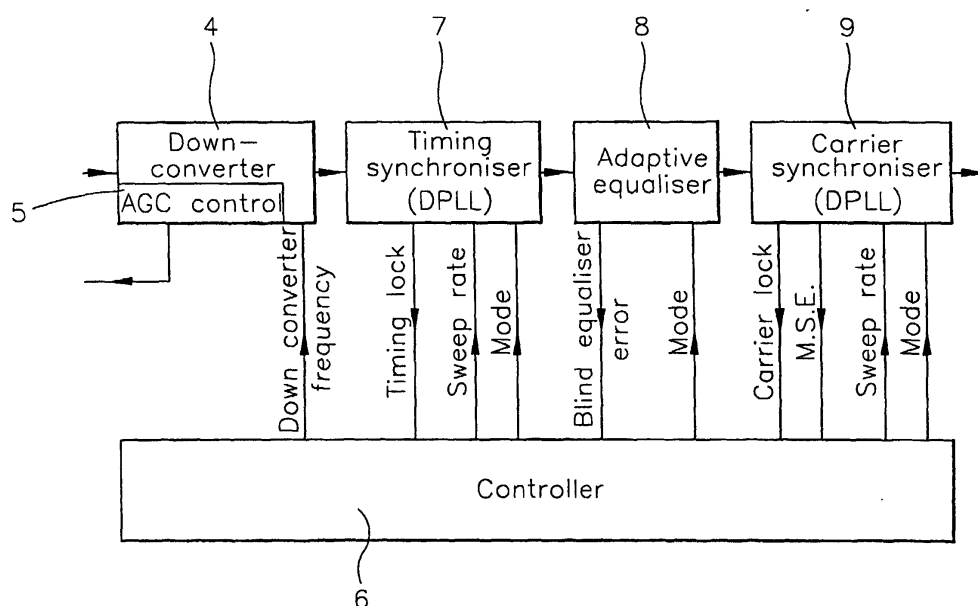


FIG 2



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Application Number
EP 01 30 3010

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 13 October 2003	Examiner Moreno, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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